WHAT IS CLAIMED IS:

1. A thienopyrimidine or thienopyridine derivative substituted with a cyclic amino group represented by the following formula [I]:

$$X-(CHR^3)_{\overline{n}}-(CR^1R^2)_{\overline{m}}$$
 R^4
 R^5
 R^6
 R^7
 R^6

(wherein the cyclic amino group is represented by the following formula [II]:

$$X-(CHR^3)_n-(CR^1R^2)_m$$
 R^4
 $N R^5$

in which the cyclic amino group is a 3- to 8-membered saturated cyclic amine or a 3- to 8-membered saturated cyclic amine bridged with C₁₋₅alkylene or C₁₋₄alkylene-O-C₁₋₄alkylene between any different two carbon atoms of the cyclic amine, which cyclic amine is substituted with a group represented by -(CR¹R²)_m-(CHR³)_n-X, R⁴ and R⁵ independently on the same or different carbon atoms of the cyclic amine;

X is cyano or hydroxy;

Y is N or CH;

R¹ is hydrogen, hydroxy, C₁₋₅alkyl, C₁₋₅alkoxy-C₁₋₅alkyl or hydroxy-C₁₋₅alkyl;

20 R^2 is hydrogen or C_{1-5} alkyl;

 $R^3 \ is \ hydrogen, \ cyano, \ C_{1\text{--}5}alkyl, \ C_{1\text{--}5}alkoxy\text{--}C_{1\text{--}5}alkyl \ or \ hydroxy\text{--}C_{1\text{--}5}alkyl;$

m is an integer selected from 0, 1, 2, 3, 4 and 5;

n is 0 or 1;

 $R^4 \ is \ hydrogen, \ hydroxy, \ hydroxy-C_{1\text{--}5}alkyl, \ cyano, \ cyano-C_{1\text{--}5}alkyl \ or \ C_{1\text{--}5}alkyl;$

R⁵ is hydrogen or C₁₋₅alkyl;

 R^6 is hydrogen, C_{1-5} alkyl, C_{3-8} cycloalkyl, C_{3-8} cycloalkyl- C_{1-5} alkyl, hydroxy, C_{1-5} alkoxy, C_{3-8} cycloalkyloxy or $-N(R^8)R^9$;

 $R^7 \ is \ hydrogen, \ halogen, \ C_{1\text{--}5}alkyl, \ C_{3\text{--}8}cycloalkyl, \ C_{3\text{--8}}cycloalkyl-C_{1\text{--5}}alkyl, \ hydroxy, \ C_{1\text{--}5}alkyl, \ hydroxy, \ C_{1\text{--5}}alkyl, \ hydroxy, \ hydr$

10

15

25

5

5alkoxy, C₃₋₈cycloalkyloxy, -N(R¹⁰)R¹¹, -CO₂R¹², cyano, nitro, C₁₋₅alkylthio, trifluoromethyl or trifluoromethoxy;

Ar is aryl or heteroaryl which aryl or heteroaryl is unsubstituted or substituted with 1 or more substituents, which are the same or different, selected from the group consisting of halogen, C_{1-5} alkyl, C_{3-8} cycloalkyl, C_{2-5} alkenyl, C_{2-5} alkynyl, C_{1-5} alkoxy, C_{1-5} alkylthio, cyano, trifluoromethyl, trifluoromethoxy, difluoromethoxy, fluoromethoxy, methylenedioxy, ethylenedioxy and $-N(R^{13})R^{14}$;

 R^8 and R^9 are the same or different, and independently are hydrogen or C_{1-5} alkyl; R^{10} and R^{11} are the same or different, and independently are hydrogen or C_{1-5} alkyl; R^{12} is hydrogen or C_{1-5} alkyl;

R¹³ and R¹⁴ are the same or different, and independently are hydrogen or C₁₋₅alkyl), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

15 2. The thienopyrimidine derivative substituted with the cyclic amino group according to claim 1 represented by the following formula [III]:

$$X-(CHR^3)_{\overline{n}}(CR^1R^2)_{\overline{m}}$$

$$R^4$$

$$N$$

$$N$$

$$N$$

$$R^6$$

$$[IIII]$$

20

10

(wherein X, m, n, the cyclic amino group, R¹, R², R³, R⁴, R⁵, R⁶, R⁷ and Ar are as defined in claim 1), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

25

3. The thienopyrimidine derivative substituted with the cyclic amino group according to claim 2 represented by formula [III], wherein X is cyano; the cyclic amino group is a 4- to 7-membered saturated cyclic amine; n is 0; m is 0 or 1; R¹, R², R⁴ and R⁵ are hydrogen; R⁶ is C₁-

salkyl; R⁷ is hydrogen or C₁₋₅alkyl; and Ar is phenyl which phenyl is substituted with two or three substituents, which are the same or different, selected from the group consisting of halogen, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkylthio, trifluoromethyl, trifluoromethoxy and –N(R¹³)R¹⁴ (wherein R¹³ and R¹⁴ are the same or different, and independently are hydrogen or C₁₋₃alkyl), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

- 4. The thienopyrimidine derivative substituted with the cyclic amino group according to claim 2 represented by formula [III], wherein X is hydroxy; the cyclic amino group is a 4- to 7-membered saturated cyclic amine; n is 0; m is an integer selected from 1, 2 and 3; R¹, R², R⁴ and R⁵ are hydrogen; R⁶ is C₁₋₅alkyl; R⁷ is hydrogen or C₁₋₅alkyl; and Ar is phenyl which phenyl is substituted with two or three substituents, which are the same or different, selected from the group consisting of halogen, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkylthio, trifluoromethyl, trifluoromethoxy and -N(R¹³)R¹⁴ (wherein R¹³ and R¹⁴ are the same or different, and independently are hydrogen or C₁₋₃alkyl), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.
- 5. The thienopyridine derivative substituted with the cyclic amino group according to claim 1 represented by the following formula [IV]:

20
$$X-(CHR^3)_{\overline{h}}(CR^1R^2)_{m} \qquad S \qquad Ar$$

$$R^4 \qquad N \qquad [IV]$$

$$R^5 \qquad R^6$$

10

15

(wherein X, m, n, the cyclic amino group, R¹, R², R³, R⁴, R⁵, R⁶, R⁷ and Ar are as defined in claim 1), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

6. The thienopyridine derivative substituted with the cyclic amino group according to claim 5 represented by formula [IV], wherein X is cyano; the cyclic amino group is a 4- to 7-membered saturated cyclic amine; n is 0; m is 0 or 1; R¹, R², R⁴ and R⁵ are hydrogen; R⁶ is C₁₋₅alkyl; R⁷ is hydrogen or C₁₋₅alkyl; and Ar is phenyl which phenyl is substituted with two or three substituents, which are the same or different, selected from the group consisting of halogen, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkylthio, trifluoromethyl, trifluoromethoxy and -N(R¹³)R¹⁴ (wherein R¹³ and R¹⁴ are the same or different, and independently are hydrogen or C₁₋₃alkyl), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

10

5

7. The thienopyridine derivative substituted with the cyclic amino group according to claim 5 represented by formula [IV], wherein X is hydroxy; the cyclic amino group is a 4- to 7-membered saturated cyclic amine; n is 0; m is an integer selected from 1, 2 and 3; R¹, R², R⁴ and R⁵ are hydrogen; R⁶ is C₁₋₅alkyl; R⁷ is hydrogen or C₁₋₅alkyl; and Ar is phenyl which phenyl is substituted with two or three substituents, which are the same or different, selected from the group consisting of halogen, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkylthio, trifluoromethyl, trifluoromethoxy and -N(R¹³)R¹⁴ (wherein R¹³ and R¹⁴ are the same or different, and independently are hydrogen or C₁₋₃alkyl), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

20

15

- 8. An antagonist for CRF receptors, comprising a thienopyrimidine or thienopyridine derivative substituted with a cyclic amino group, a pharmaceutically acceptable salt thereof or its hydrate according to any one of claims 1 to 7, as an active ingredient.
- 9. Use of a thienopyrimidine or thienopyridine derivative substituted with a cyclic amino group, a pharmaceutically acceptable salt thereof or its hydrate according to any one of claim 1 to 7, for the manufacture of an antagonist for CRF receptors.